



FirstNet™



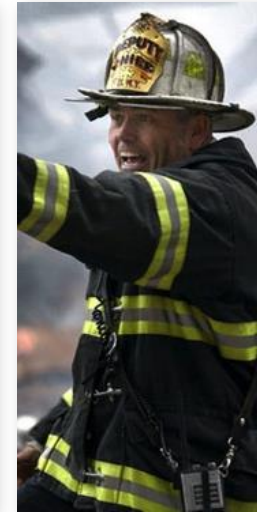
FirstNet Overview & Update

Teri Takai, FirstNet Board Member
February 2, 2015

First Responders Deserve the Best Network



- FirstNet will ensure the development of a reliable and resilient broadband network that will provide nationwide coverage, even in the most remote regions



- The network must meet public safety's requirements and ensure priority and preemption during emergencies
- The network will provide access to applications and broadband services

Vision for Public Safety



Non-Mission Critical

The Long-Term Vision

Mission Critical

FirstNet will provide emergency responders with the first nationwide, high-speed, wireless broadband network dedicated to public safety

Mobile Data Terminal –



FirstNet™ LTE Device



Data

Smart Phone –



FirstNet™ LTE Device



Data

Voice

**Land Mobile Radio
Public Safety
System/Spectrum**



Voice

Our History & Mandate



2004

Middle Class Tax Relief and

*"The First Responder Network
single public safety wireless
necessary to ensure the
operation of the nationwide
network"*

increased assignment
spectrum for
purposes

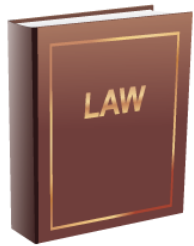
2011

Association Supporting D-Block Reallocation

National Governors Association
National Association of Counties
National League of Cities
United States Conference of Mayors
Council of State Governments
International City/County Management Association
National Conference of State Legislatures
International Association of Chiefs of Police
International Association of Fire Chiefs
National Sheriffs' Association
Major Cities Chiefs Association
Metropolitan Fire Chiefs Association
Major County Sheriffs' Association
Association of Public-Safety Communication Officials
National Emergency Management Association
International Association of Emergency Managers
Police Executive Research Forum

National Criminal Justice Association
National Association of Police Organizations
National Volunteer Fire Council
National Troopers' Coalition
National Organization of Black Law Enforcement Executives
Association of Air Medical Services
Advocated for Emergency Medical Services
Emergency Nurses Association
National Association of Emergency Medical Services Physicians
National Association of Emergency Medical Technicians
National Association of State Emergency Medical Service Officials
National Emergency Medical Services Management Association
American Probation and Parole Association
National Association of Regional Councils

FirstNet Beginnings



THE LAW

2.22.12

FirstNet becomes law
PL 112-96

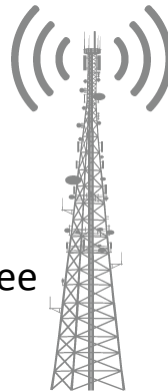
GOVERNANCE



The FirstNet Board has **15** members, including those with telecommunications and public safety backgrounds

Each Governor appoints **1** Single Point of Contact (SPOC) and governing body to represent the state's interests to FirstNet

40 member Public Safety Advisory Committee (PSAC) advises FirstNet on public safety intergovernmental matters



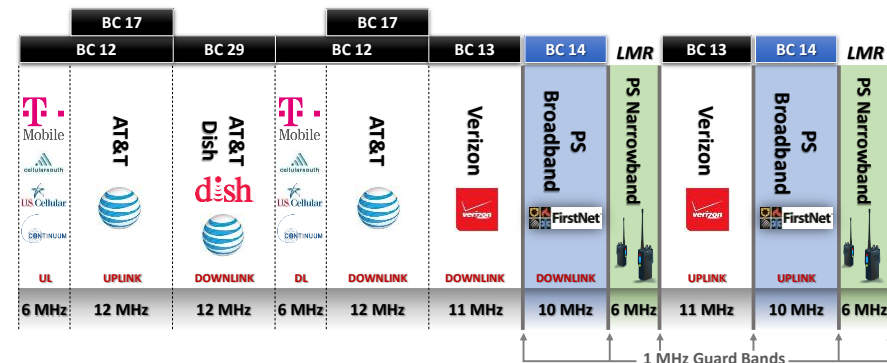
FUNDING



\$7B authorized to build the FirstNet network. Funded by spectrum auctions through 2022

BAND CLASS (BC) 14

20MHz of bandwidth has been dedicated to public safety in the prime upper **700MHz** frequency range



Funding

Building an Affordable, Self-Funding Network



- The network is to be self-sustaining
- Planning and implementation funding is provided through spectrum auctions
- Funds available until September 30, 2022; unused funds revert to the Treasury

Phase	Funds	Purpose
Planning	\$135 Million	Grants to assist States/Territories with planning & implementation
Implementation	\$7 Billion	\$2 Billion provided to start planning, designing and early implementation Remaining \$5 Billion from spectrum auctions
Growth / Sustainment	Ongoing	1. Lease Fee for Excess Network Capacity 2. Lease Fee for Network Equipment / Infrastructure 3. Network User Fee 4. Core Network Access Fee

Road to FirstNet Board



- State of Michigan CIO
 - Responsible for MPSCS from 2003
- State of California CIO
 - Responsible for 911 and Public Safety Communications Funding
 - Responsible for ARRA Broadband Proposals
- Department of Defense CIO

DoD is Big and Distributed



- People: **More than 3.3 million**; uniformed, civilian including guard and reserve
- Located in **163 countries**
- Facilities: “several hundred thousand buildings at more than 6,000 different locations...over 30 million acres of land”



U.S. Army soldiers, Kunar province, Afghanistan

...DoD is *Very* Mobile...



A USMC HM-53D helicopter on the USS Tortuga off Ominato, Japan

A U.S. Navy EA-18G Growler takes off from Aviano Air Base, Italy in support of the larger international response to the unrest in Libya



Within U.S.

- Federal, state, and local agencies
- Public Safety

Outside U.S.

- Military
- Disaster Relief



DoD is Completely Dependent on Connectivity and Information



U. S. Army Spc. Jeremy Burton in the Arghandab River Valley
in Kandahar province, Afghanistan

- Spectrum
- Position, Navigation, and Timing
- Satellite Communications

- Board Member
- Representing State Government
- Provide Federal Experience on RFI
- Serve on Outreach and Governance Committee

Request for Information Overview for Comprehensive Network Solution(s)



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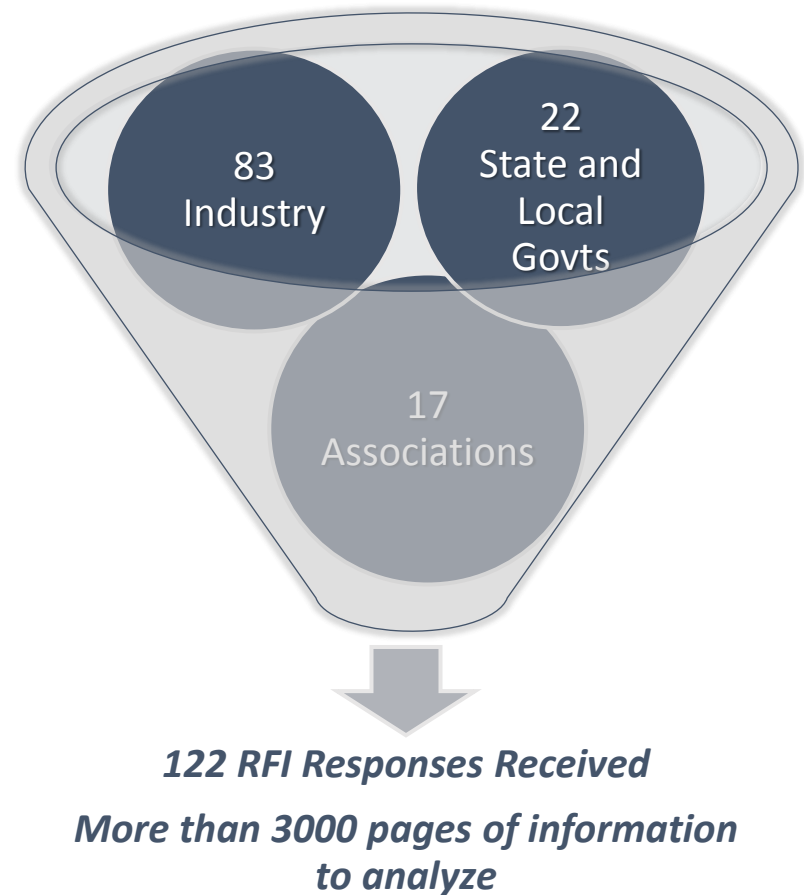
Summary of Key Information in RFI



- The RFI asked respondents questions concerning:
 - Building, deploying, operating, and maintaining the network
 - End user pricing
 - Speed to market
 - System hardening, reliability, and restoration
 - Priority and preemption
 - Use of existing infrastructure assets
 - Lifecycle innovation
 - Customer care and marketing

RFI and Draft Statement of Objectives Recap

- Broad participation from industry, government, and associations
- Thoughtful answers to most questions and objectives



Public Notice and Comment Overview



Notice and Comment Process Overview

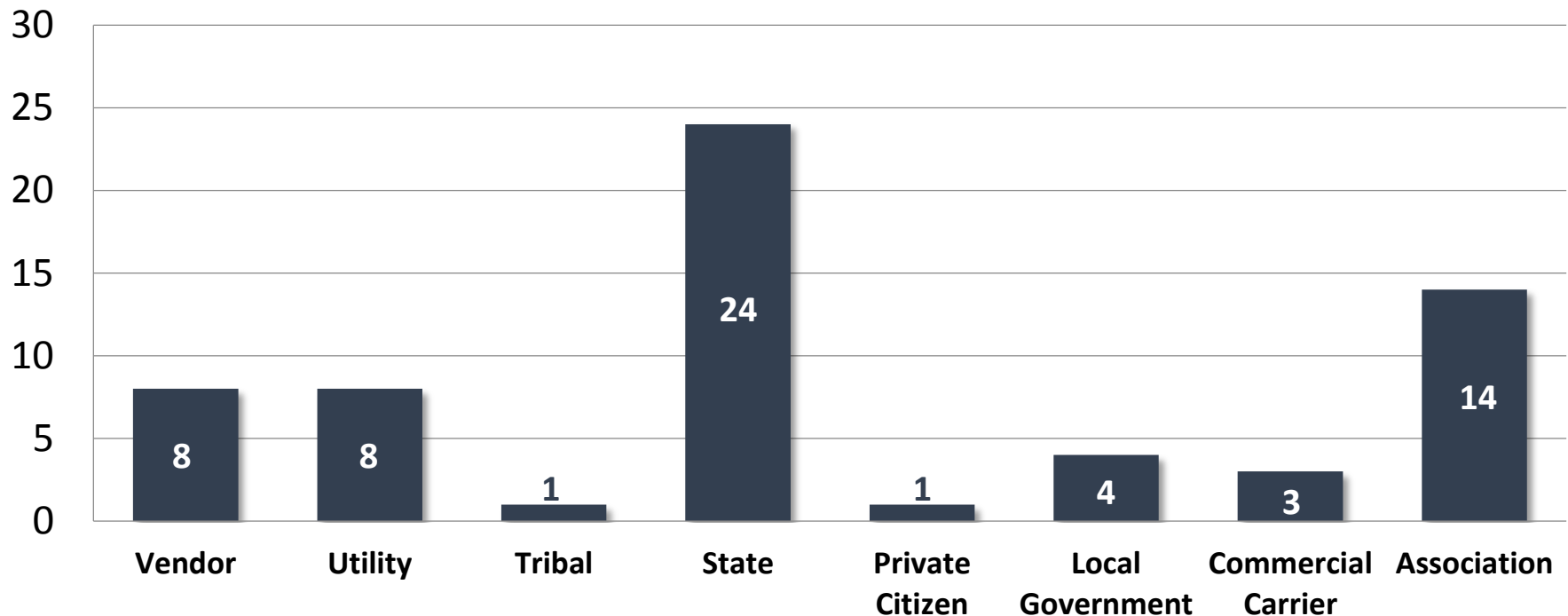


- The Notice sought comment on key topics including:
 - Network elements, including “core” and “RAN”
 - Network users,
 - Permitted services
 - Definition of “Rural”
 - Existing infrastructure sharing
 - Fees, including covered leasing fees

Overview: Public Notice Responses



Summary of Responses Totals by Organization Type



A total of **63** responses were received from various groups, including State, local and Tribal governments, commercial carriers and vendors, and associations.

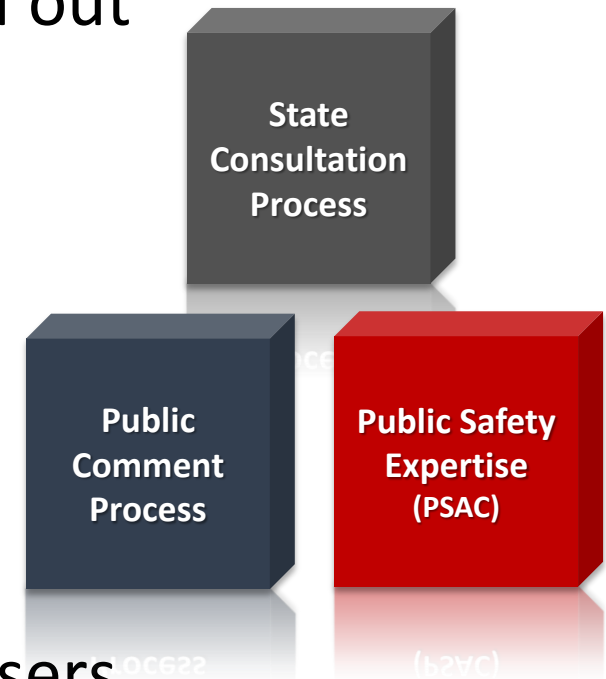
State Consultation



Mandatory Elements for Planning



- Construction of a core and RAN build out
- Placement of towers
- Coverage areas
- Hardening, security, reliability, and resiliency
- Priority to local users
- Priority and selection of secondary users
- Training needs



Note: Tribal consultation requirements under the National Historic Preservation Act will be addressed separately.

Overview of State Consultation Process



- Consultation is an iterative process
- FirstNet will communicate the consultation process and necessary roles and responsibilities
- Consultation will focus on critical information and data
- Plan development will also be iterative

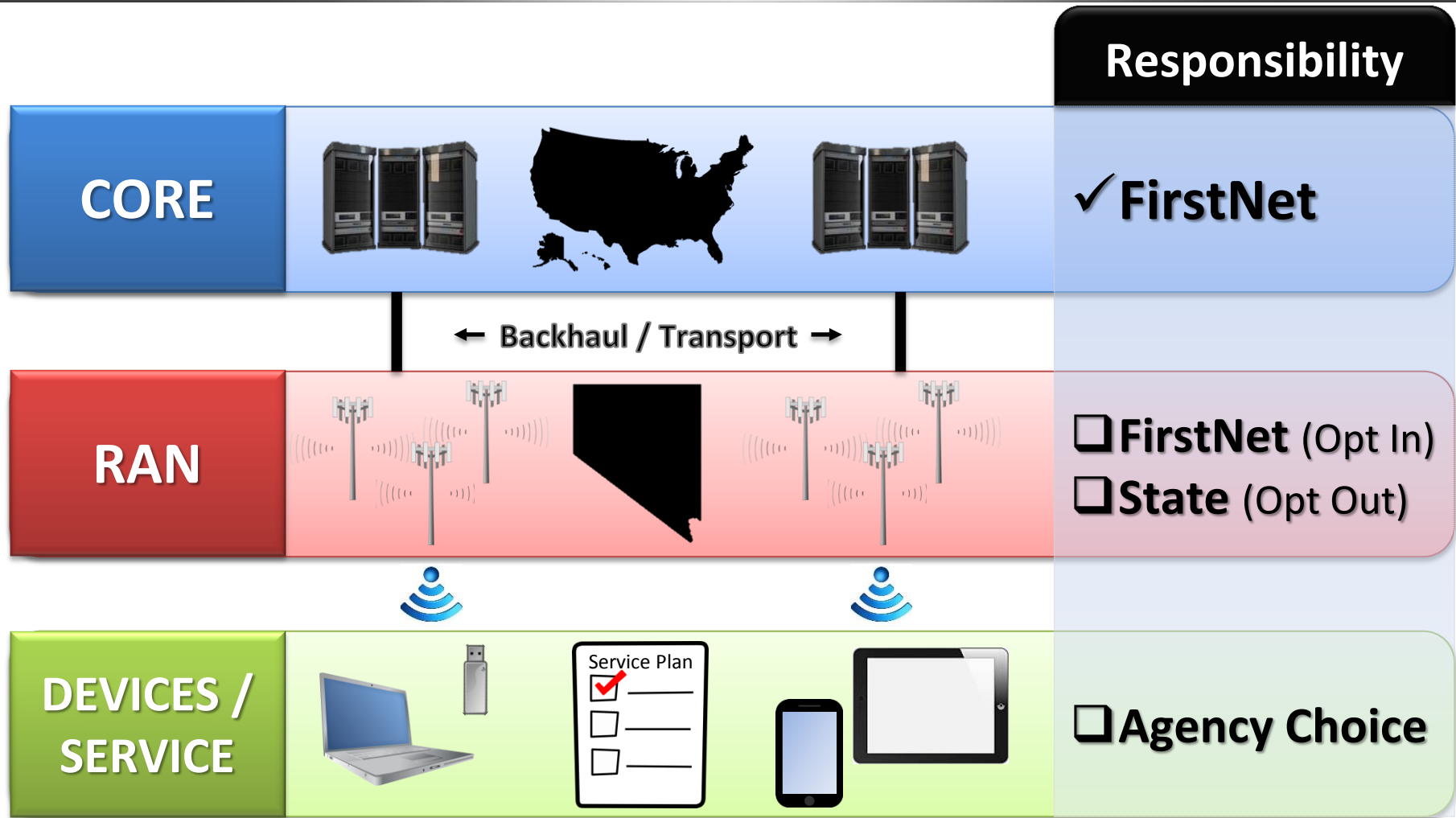
Together, stakeholders and FirstNet will have engaged in a process that provides meaningful and thorough information for the state plans

State Plan Requirements

- Completion of the RFP process
- Document proposed build-out in the state
- Funding level for the state



Network Components and Choices



Initial Consultation Goals



**Strengthen
Our
Relationship**



**Provide
FirstNet
Updates**



**Learn about
State's
Unique
Needs**



**Discuss
Next Steps**

Consultation Results (continued)



- Recurring topics of interest:
 - Affordability
 - Coverage, including rural and tribal
 - Coordination with federal agencies
 - Network, priorities, and bandwidth
 - Devices and equipment
 - Cyber security
 - Deployables
 - Use of existing assets
 - Users, including volunteers
 - Existing infrastructure



- **FirstNet**
 - There are many open questions
- **State participation**
 - There are many open questions

Working together to create a shared solution is key.

FirstNet + State and Local
Public Safety Communications = Success!

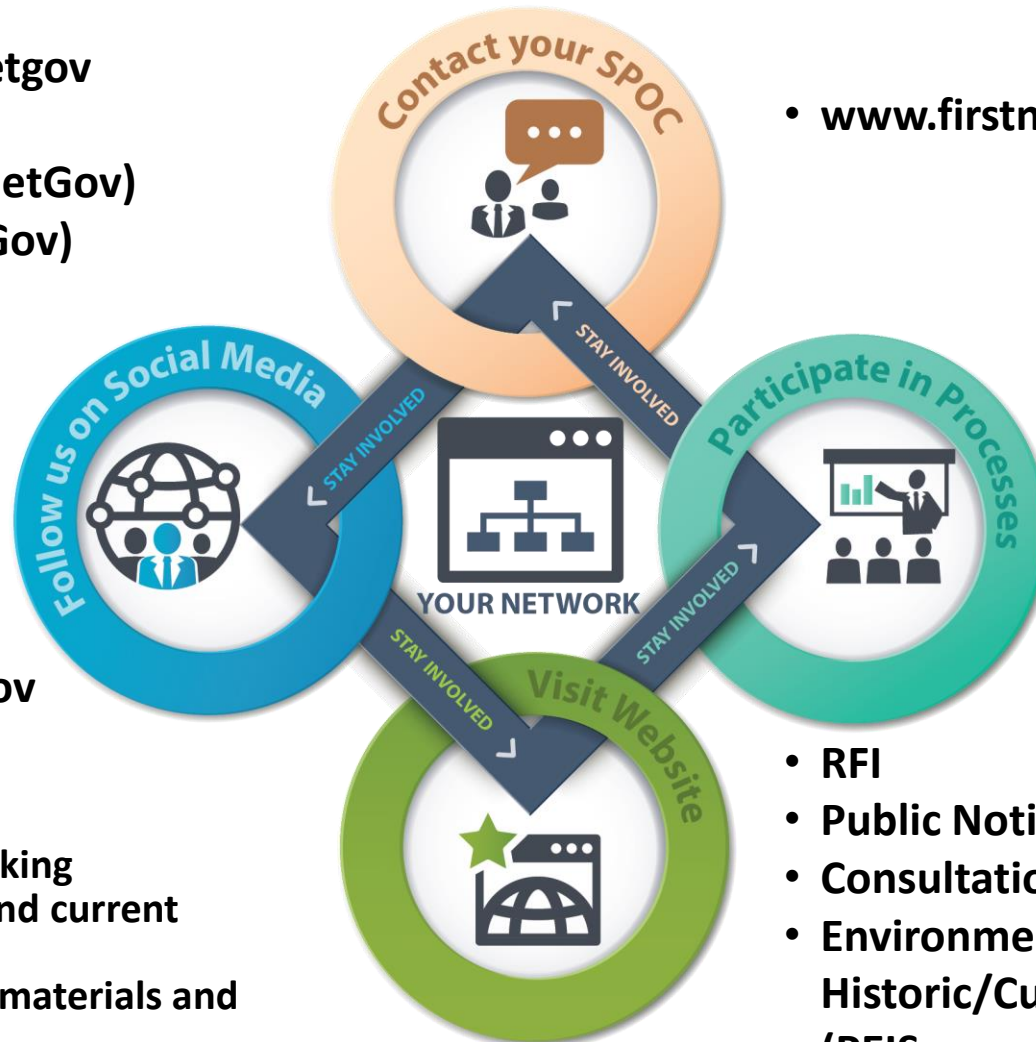
Get Involved!

Stay in Touch with FirstNet



- [Twitter@firstnetgov](https://twitter.com/firstnetgov)
- LinkedIn
- YouTube (FirstNetGov)
- Flickr (FirstNetGov)

- www.firstnet.gov/consultation



- www.firstnet.gov
 - Fact Sheets
 - Blogs
 - Presentations
 - Upcoming speaking engagements and current events
 - Board meeting materials and webcast

- RFI
- Public Notice
- Consultation
- Environmental and Historic/Cultural Topics
(PEIScomments@firstnet.gov)



@FirstNetGov

FirstNetTM



Questions?



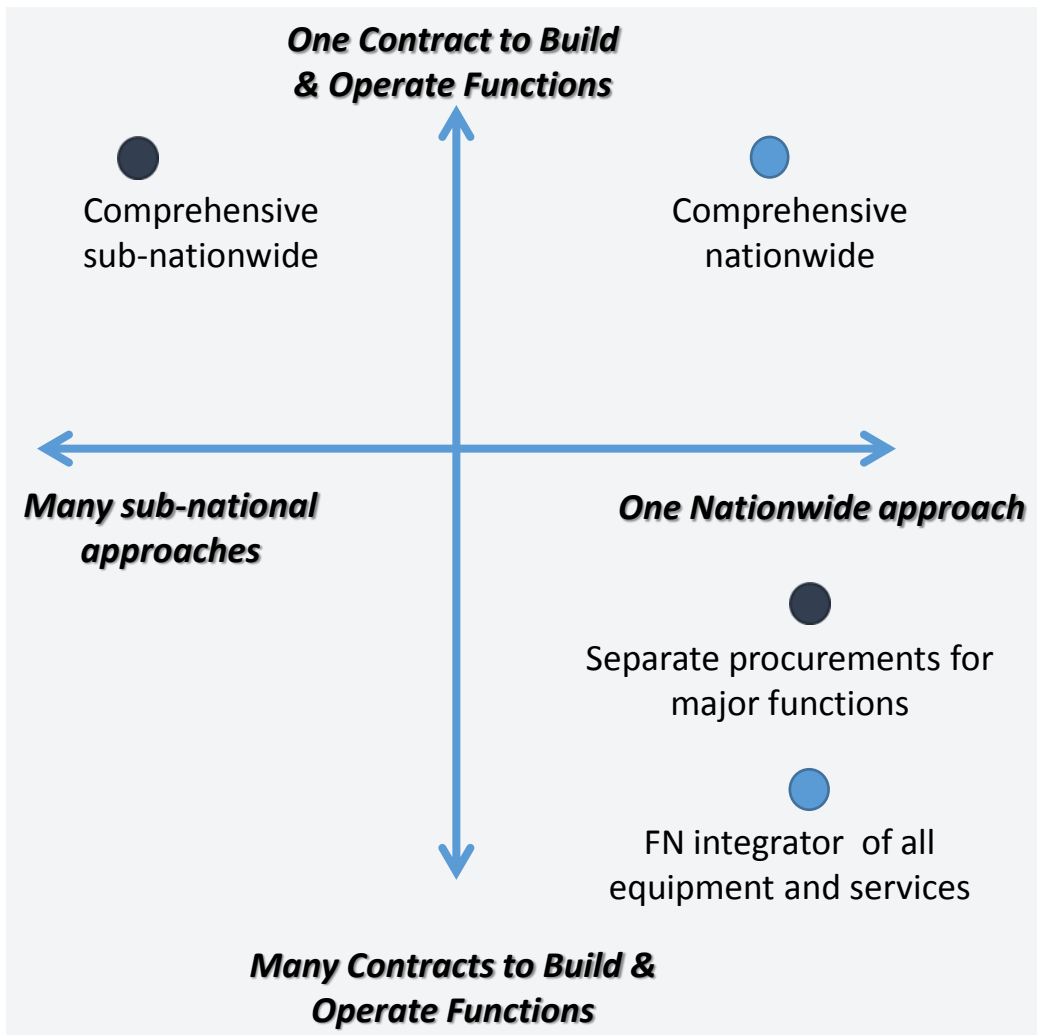
@FirstNetGov

FirstNetTM



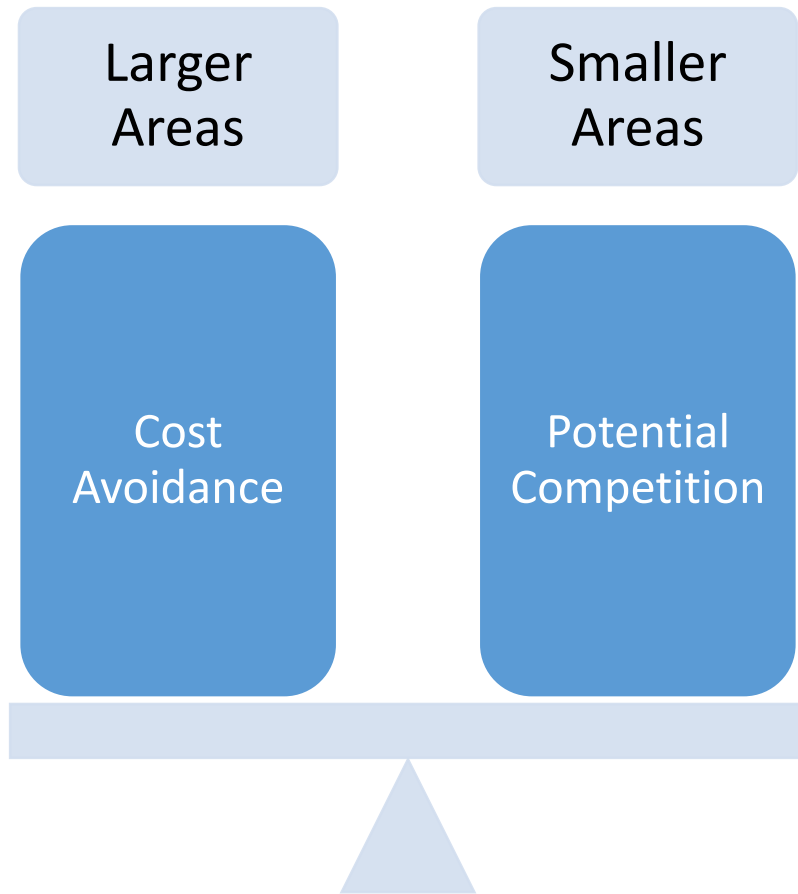
Back Up Slides to RFI

The Marketplace Can Deliver a Network Meeting FirstNet Statement of Objectives



- Many firms possess the capability to build and operate the network
- Approaches suggested ranged from single comprehensive provider to FirstNet-led integration
- Many responses emphasized FirstNet's limited funding
- Respondents broadly validated FirstNet's objectives and approach

Respondents Support Monetization of Excess Network Capacity



- Broad support to promote sustainability through use of excess capacity
- Contractor use of excess capacity needed to promote aforementioned cost avoidance
- Smaller areas may increase competition, and excess capacity value, by allowing more firms to participate, but may limit cost avoidance
- Excess capacity commitments by firms could reduce the importance of cost avoidance

Minimize Costs by Leveraging Mass Market Standards-Based Solutions



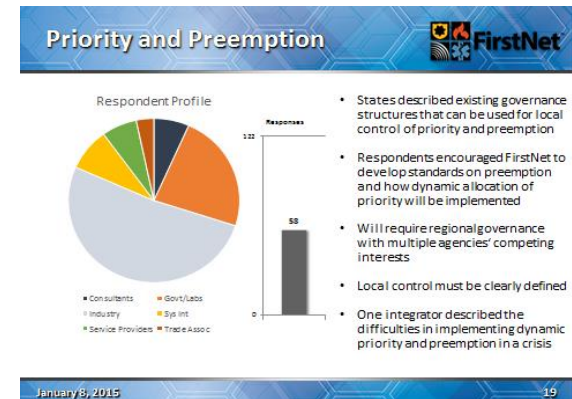
Standards-based solutions support FirstNet's Statement of Objectives

- Financial Sustainability
- Speed to Market
- Opt-Out RAN Integration
- Lifecycle Innovation
- Application Ecosystem
- Device Ecosystem
- Required by the Act

Major Themes from RFI



- Near unanimous support for national core
- Respondents preferred that FirstNet make the ultimate economic desirability determinations
 - States generally voiced support for a greater role in the determination
- Universal agreement that security and resiliency are critical distinguishing factors
 - Respondents generally cautioned against the cost of across the board hardening – instead suggesting selective hardening of critical sites
- States most vocal in advocating higher minimum thresholds in reliability
- Accelerate to market:
 - Most suggested to build in phases in populous areas
 - States recommended balanced plan to ensure timely rural and tribal coverage



**** Download detailed slides from FirstNet Board meeting at FirstNet.gov****



Document RFI
analyses and
refine
acquisition
alternatives

Continue
consultation
efforts, public
notice and
comment
processes

Finalize
acquisition
approach and
issue draft RFP